

# ERFAN KEFAYAT

## PHD IN PUBLIC POLICY

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(440) 668-6756  
CHARLOTTE, NC

### CAREER HIGHLIGHT

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- Skilled in geospatial analysis and statistics, and data automation using ArcGIS, R, and Python.
- Applied mixed-method research in urban planning, transportation, and policy-related projects.
- Focused on delivering data-driven insights to guide efficient, evidence-based decisions.

### EDUCATION

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<b>Doctor of Philosophy in Public Policy</b> <i>UNC Charlotte</i>	Aug. 2021 – Dec. 2025
<b>Geographic Information Science and Technology, Graduate Certificate</b> <i>UNC Charlotte</i>	August 2025
<b>Master of Science in Urban Planning</b> <i>DHEI</i>	Aug. 2016 – Aug. 2019
<b>Bachelor of Science Urban Engineering</b> <i>Art University of Isfahan</i>	Aug. 2012 – Aug. 2016

### WORK EXPERIENCE

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<b>Graduate Research Assistant</b> <i>Urban and Regional Spatial Analysis Lab (URSAL), UNC Charlotte</i>	Aug. 2021 - Present
<ul style="list-style-type: none"><li>• Built geospatial models of public safety across 400+ neighborhoods, identifying patterns from 70+ socio-spatial features to inform urban policy</li><li>• Engineered a geospatial model for 1M+ international vessels, streamlining maritime logistics visualization and analysis</li><li>• Implemented a geocoding algorithm processing 500k+ vehicles per year over 20 years using web crawling and text-matching techniques</li><li>• Automated geoprocessing workflows to analyze and visualize county-level transportation analysis</li><li>• Developed a geospatial data pipeline using American Community Survey data to support the county-level quality of life dashboard</li></ul>	
<b>GIS Developer (Internship)</b> <i>Behin Labs</i>	May 2020 – Sep. 2020
<ul style="list-style-type: none"><li>• Contributed to the development of WebGIS applications using Django and POSTGIS</li></ul>	
<b>GIS Specialist</b> <i>Bana Abadi Consulting Firm</i>	Feb. 2019 – Dec. 2019
<ul style="list-style-type: none"><li>• Provided GIS assistance for urban development plans using ArcGIS and AutoCAD</li><li>• Utilized Civil 3D to design road networks for efficient urban infrastructure development</li></ul>	

## GIS Specialist

Jan. 2018 – Dec. 2018

NAP Consulting Firm

- Collaborated with team members to survey and analyze geospatial data of properties and feed development plans using ArcGIS
- Collaborated with team members to formulate and submit urban and rural development plans

## AutoCAD Drafter (Internship)

May 2015 – Aug. 2015

Andalib Consulting Firm

- Digitized development site plans using AutoCAD, ensuring compliance with design standards

## Urban Planner (Internship)

May 2014 – Aug. 2014

Isfahan Municipality

- Reviewed building permit applications and conducted inspections to ensure compliance with zoning ordinances

## PUBLICATIONS

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Kefayat, E., & Thill, J.-C. (2025). *Urban street network configuration and property crime: An empirical multivariate case study*. *ISPRS International Journal of Geo-Information*, 14(5), 200.

Iddrisu, Z., Abdulai, A. S. J., Kefayat, E., & Gadri, M. (2025). *Local government proliferation and fiscal efficiency: Evidence from Ghana*. *Growth and Change*, 56(4), e70058.

## PROFESSIONAL AFFILIATIONS

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American Association of Geographers

## SKILLS

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- **Geospatial Science:** ArcGIS Suite, Geostatistics, Raster Analysis, Network Analysis, SPSS, AMOS
- **Urban Planning and Design:** Sustainable Development, LEED-ND, Land-use Planning, Transportation Planning
- **Programming:** Python, Jupyter Notebook, Arcpy, Pandas, Geopandas, Matplotlib, NetworkX, OSMNX, Scikit-Learn, R, Bash scripting, high-performance computing
- **Web Application:** HTML, Django, Selenium, Semantic Analysis
- **ML Expertise:** Random Forest, Decision-Tree, SHAP, DBSCAN, Principal Component Analysis, Spatial Clustering
- **Additional Tools:** Civil 3D, Photoshop, Sketch Up

## CERTIFICATIONS

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- SDS Python Bootcamp – DataCamp
- Data Manipulation in Python: Master Python, NumPy & Pandas – Udemy
- Machine Learning with Tree-Based Models in Python – Udemy
- Introduction to Deep Learning in Python – DataCamp